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SEED ANALYSIS REPORT

GENERAL BULLETIN 703
PENNSYLVANIA DEPARTMENT OF AGRICULTURE

COMMONWEALTH OF PENNSYLVANIA
WILLIAM W. SCRANTON, GOVERNOR

DEPARTMENT OF AGRICULTURE
LELAND H. BULL, SECRETARY

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OUR COVER

This is the home of the new offices and laboratories of the Pennsylvania Department of Agriculture located across the street from The Farm Show Building on North Cameron Street. The laboratory wing of the building houses our new and expanded Seed Laboratory and we extend an invitation to you to visit our new facilities.

Commonwealth of Pennsylvania
Department of Agriculture
Bureau of Plant Industry

Seed Analysis Report—1964

Wendell P. Ditmer
Seed Control Officer

The Pennsylvania Seed Act is essentially a law to regulate the labeling of agricultural (including trees, shrubs and mixtures) and vegetable seeds that are offered or exposed for sale or transported in the Commonwealth. The majority of people, when they buy a product of any kind, usually take into consideration the quality. This should also be true when buying seed. If a person is interested in growing a good crop or a lawn he should be concerned with quality, if only concerned with a mediocre crop or lawn, then disregard the quality. The seed label is a sure way of telling the quality of the seed, especially if it is certified seed.

In the ordinary distribution of commercial seed the buyer accepts the information indicated on the tag as to variety and source, while with certified seed the variety and origin can be traced. Field inspection of the growing crop, sampling, laboratory analysis and proper labeling of the seed is the best assurance of good quality seed of known purity, germination and heredity. Certified seed doesn't cost—it pays!

Each year in the enforcement of the Seed Act, inspectors visit seed vendors throughout the State. Seed that is offered for sale is examined for proper labeling requirements and samples are drawn for examination and testing in the Seed Laboratory. This report is a summary of the activities of the Seed Control Program from October 1, 1963 to June 30, 1964.

During the inspection program, lots of seed that are incorrectly labeled are placed under a "Stop Sale" until correctly labeled or destroyed. Lots of seed that are tested in the seed laboratory and found to be mislabeled are also placed under "Stop Sale". During the inspection period covered by this report a total of 319 lots of seed were placed under "Stop Sale" for various reasons.

During the period covered by this report inspectors collected the following number of samples:

1251 samples of agricultural seeds, of which 8.7% were illegal for sale;
202 samples of mixtures of agricultural seeds, of which 50.9% were illegal for sale;
795 samples of vegetable seeds, of which 5.1% were illegal for sale;
15 samples of tree and shrub seeds, of which 33.3% were illegal for sale.

A comparison of seed violations for the past three years is as follows:

	1964	1963	1962
Agricultural Seeds	8.7%	10.4%	16.3%
Mixtures of Agricultural Seeds	50.9%	36.8%	46.2%
Vegetable Seeds	5.1%	4.9%	5.5%
Tree and Shrub Seeds	33.3%	.....	.....

Tables I, II, and III mention technical violations and Table IV has them listed by companies. The following are considered technical violations in this report: Not using complete kind names; improper terms for variety names; use of improper labeling terms; use of abbreviations of kind and variety names; illegal treatment tags; illegible tags; analysis not totaling 100%; and lack of required information, such as: lot number, origin when required, terms "mixed" or "mixture" for mixtures, and name and address. A lot of seed sampled at the wholesale level and in violation of the law was classified as a technical violation, if relabeled.

Summary of Seed Laboratory Work

Classification of the samples for which tests were completed and the total number of laboratory tests involved are listed in the following summary:

Number of Samples	Kinds	NUMBER OF TESTS Purity	Noxious Weed Examinations	Germination
2383	Agricultural Seeds	610	1736	2364
913	Vegetable Seeds	12	2	978
210	Mixtures (840 components)	210	206	683
16	Tree and Shrub Seeds	0	0	16
1	Flower Seeds	0	0	1
31	Checked for labeling only			
3554	Totals	832	1944	4042

The 4042 germination tests include 250 fluorescence tests made on ryegrass samples. The Seed Laboratory also made 1467 additional tests: interstate noxious weed examinations, embryo excision, moisture tests, test weights and tests to determine if seed was treated. Thus making a total of 8285 various tests made in the laboratory.

The facilities of the Seed Laboratory are available to Pennsylvania farmers, home owners, seedsmen and other State Departments, who submitted 1260 samples for testing.

General Information for Seed Vendors

Carry-over lots of seed to be sold must be retested and relabeled within a nine month period. The person or dealer upon whose premises seeds are located is held responsible for all labeling requirements. All seed must be properly labeled regardless of the size of the lot or container.

If you are not positive that your labeling meets the requirements of the Seed Act or you would like a copy of the Pennsylvania Seed Act and the Rules and Regulations under the Act, write to the Seed Laboratory, Bureau of Plant Industry, Department of Agriculture, Harrisburg, Pennsylvania 17120.

TABLE I

Agricultural Seeds in Violation of the Seed Act

One thousand one hundred and forty official samples of agricultural seeds (not including mixtures) were analyzed in the Seed Laboratory. This table lists the nature of the serious violations. Sixty-six lots of seed were found to be in technical violation of the law, or in violation at the wholesale level; these have been relabeled or destroyed. These violations are not listed in this table but are recorded in Table IV.

The listing of both wholesaler and retailer does not imply a judgment of guilt against one or the other. The vendor of the seed, usually the retailer, is legally responsible for its condition, but the retailer cannot be justly blamed in all cases of misleading. Wholesalers name is in boldface type. Laboratory number is in parenthesis after the remarks and source of seed.

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Sorghum-Sudan Grass SU-1 ZOH-670	Labeled 90% germination, found 65%, **Beachley-Hardy Seed Co.**; Purina Ralston Co., Knoxville, Pa. (A641983)
Red Clover Pennscott 24-50	Noxious weed seeds exceeds that stated. Certified seed. **Craver-Dickinson Seed Co.**; Erie-Crawford Dairy Co-op., Erie, Pa. (A641955)
Oats Garry CG5	Contains prohibited weed seeds. Shipped without certification tags or seals. **Dewine & Hamma**; Seems Seed Farms, Inc., Emmaus, Pa. (A640534)
Oats Clintland 60 CL-4-19	Contains prohibited weed seeds. Certified seed. **Dewine & Hamma**; Altmans Feed Store, Latrobe, Pa. (A642042)
Orchard Grass Pennlate 4622	Labeled 93.50% pure, found 90.20%. Labeled 6.47% inert matter, found 9.80%. **Eastern States Farmers Exchange, Inc.**; Eastern States, Milton, Pa. (A641895)
Oats Forage Type 41435	Contains noxious weed seeds, none labeled. **Eastern States Farmers Exchange, Inc.**; Eastern States, Dublin, Pa. (A641410)
Smooth Brome Lincoln Type 41392	Labeled 89.00% pure, found 85.07%. Labeled 10.40% inert matter, found 14.68%. Labeled 71% germination, found 58%. **Eastern States Farmers Exchange, Inc.**; Eastern States, Mifflin, Pa. (A641307)
Orchard Grass 4537	Labeled .20% crop seed, found 1.47%. Non-uniform lot of seed. **Eastern States Farmers Exchange, Inc.**; Eastern States, Curryville, Pa. (A642158)
Bluegrass Merion Kentucky 612	Labeled 80% germination, found 69%. **A. Ertag, Inc.**; Seems Seed Farms, Inc., Emmaus, Pa. (A641951)
Redtop P-2296	Labeled 91.30% pure, found 85.85%. Labeled 6.80% inert matter, found 12.07%. Contains noxious weed seeds, none labeled. **G. L. F. Exchange, Inc.**; Anderson G. L. F., Sugargrove, Pa. (A642117)
Bluegrass Kentucky N-3138	Labeled 12.10% inert matter, found 15.03%. **G. L. F. Exchange, Inc.**; G. L. F., Coudersport, Pa. (A641990)

TABLE I

Agricultural Seeds in Violation of the Seed Act

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Red Clover Pennscott P1749	Labeled red clover but found to be alsike clover. **G. L. F. Exchange, Inc.**; Everett's G. L. F., Gilbert, Pa. (A641879)
Redtop 608	Labeled 5.30% inert matter, found 7.23%. **Ging, Inc.**; Mock Seed Co., Pittsburgh, Pa. (A640916)
White Clover GWD1-64	Labeled 98.60%, pure, found 96.71%. Labeled .20% crop seeds, found 1.74%. Labeled .20% weed seeds, found .79%. **W. T. Grant Co.**; Grants, Altoona, Pa. (A641700)
Red Clo. Medium 1258	Contains prohibited weed seeds. Improper kind name. **Henry Hirsch & Sons, Inc.**; Frank Platt, Spartansburg, Pa. (A641865)
Bluegrass Kentucky KB-1315	Labeled 98.60%, pure, found 96.71%. Labeled .20% crop seed, found .79%. Labeled 80% germination, found 66%. Name and address is required information. **Kahn Bros. Co.**; Spiegel, Inc., Philadelphia, Pa. (A641866)
Ryegrass Italian 23-2-1-C	Labeled .05% weed seed, found .53%. **Loft Pedigreed Seed Co.**; Pine Run Supply Co. Warehouse, Horsham, Pa. (A641277)
Bluegrass Kentucky 2381	Labeled 85.71% pure, found 81.68%. Labeled 12.55% inert matter, found 16.40%. **Loft Pedigreed Seed Co.**; Pine Run Supply Co. Warehouse, Horsham, Pa. (A641272)
Bluegrass Kentucky 596	Labeled 91.08% pure, found 78.46%. Labeled 8.82% inert matter, found 21.47%. **Mock Seed Co.**; Midland Milling & Supply Co., Midland, Pa. (A641962)
Smooth Brome Grass H-320	Labeled 80% germination, found 64%. **Northampton County Seed Co.**; Snyder Milling Co., Nazareth, Pa. (A641644)
Sweet Clover White Blossom PM-64	This is a mixture of white blossom and yellow blossom sweet clover. **Northampton County Seed Co.**; Paul & Marsteller, Trexlertown, Pa. (A641394)
Bluegrass Merion Kentucky BM1524	Labeled 5.50% inert matter, found 7.85%. **Ohio Seed Co.**; Pringle Feed Store, Greenville, Pa. (A642138)
Alfalfa DuPuits A-2444	Labeled 75%-15% germination and hard seed, found 62%-5%. **Ohio Seed Co.**; Belleville Flour Mill Co., Belleville, Pa. (A640703)
Ryegrass Perennial RG-3035	Labeled 90% germination, found 75%. **Ohio Seed Co**; Red Bank Mills, New Bethlehem, Pa. (A642214).
Tall Fescue Kentucky 31 7029	Labeled 85% germination, found 68%. **Oliger Seed Co.**; H. G. Neiger Milling Co., Lake City, Pa. (A642069).

TABLE I

Agricultural Seeds in Violation of the Seed Act

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Bluegrass Kentucky 5026	Labeled .20% weed seeds, found .79%. **Oliger Seed Co.**; Nickle Plate Mill, Erie, Pa. (A641858)
Bluegrass Kentucky G-22	Labeled 91.75% pure, found 88.24%. Labeled 8.21% inert matter, found 11.51%. **Philadelphia Seed Co.**; Northampton County Seed Co., Bath, Pa. (A641950).
Barley Hudson 1	Contains prohibited weed seeds. **Pixley & Co.**; W. B. Thompson & Son, Waynesboro, Pa. (A640020)
Rye Balbo 2463	Contains prohibited weed seeds. **Reist Seed Co.**; Passmore Supply Co., Avondale, Pa. (A640028)
Sweet Clover Yellow blossom Y2141	Labeled 78%-5% germination and hard seed, found 64%-7%. **Pa. Farm Bureau Co-op. Ass'n.**; Farm Bureau, Lebanon, Pa. (A641200)
Timothy T3177	Contains noxious weed seeds, none labeled. **Pa. Farm Bureau Co-op. Ass'n.**; Farm Bureau, Butler, Pa. (A641369 and A641692)
Red Clover Pennscott CP3285	Contains noxious weed seeds, none labeled. **Pa. Farm Bureau Co-op. Ass'n.**; Farm Bureau, Butler, Pa. (A641382)
Sudan Grass Piper 2-130	Labeled 90% germination, found 75%. **Pa. Farm Bureau Co-op. Ass'n.**; Farm Bureau, Lebanon, Pa. (A642034)
Timothy 11773	Contains prohibited weed seeds. **Wm. G. Scarlett & Co.**; Dillsburg Feed & Grain, Dillsburg, Pa. (A640001 and A640002)
Timothy 4414	Contains prohibited weed seeds. **Wm. G. Scarlett & Co.**; Paul Lehman, York Springs, Pa. (A640004)
Red Clover 19479	Noxious weed seeds exceed that stated. **Wm. G. Scarlett & Co.**; DeGroff Feed & Farm Supply, Littlestown, Pa. (A641601)
Timothy 300-532	Contains prohibited weed seeds. **Seaboard Seed Co.**; Walker Bros., Chambersburg, Pa. (A640023)
Timothy 300-494	Labeled 83% germination, found 75%. **Seaboard Seed Co.**; Ulsh Farm & Home Supply Inc., Port Trevorton, Pa. (A640030)
Orchard Grass 190-155	Labeled 92.25% pure, found 89.54%. Labeled 6.60% inert matter, found 9.85%. **Seaboard Seed Co.**; A.H.Hoffman, Inc., Landisville, Pa. (A640578)
Alfalfa Cayuga 19-122	Labeled 75%-15% germination and hard seed, found 69%-1%. **Seaboard Seed Co.**; Carlton Seed Co., Porters Sidling, Pa. (A640772)

TABLE I

Agricultural Seeds in Violation of the Seed Act

Kind of Seed Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Red Clover 225-657	Noxious weed seeds exceed that stated. **Seaboard Seed Co.**; Passmore Supply Co., Avondale, Pa. (A641178)
Red Clover Mammoth 150-66	Origin marked as Michigan and Indiana, found to contain violet stained seed from Canada. **Seaboard Seed Co.**; Catawissa Milling Co., Inc., Catawissa, Pa. (A641807)
Sweet Clover Yellow Blossom 292-61	Contains prohibited weed seeds. **Seaboard Seed Co.**; Rhoads Mills, Inc., Selinsgrove, Pa. (A641904)
Birdsfoot Trefoil Empire 2750	Labeled 47%-35% germination and hard seed, found 30%-22%. Below certification standards. **Stanford Seed Co.**; Carlton Seed Co., Porters Sideling, Pa. (A640790)
Redtop 3467	Labeled .49% weed seeds, found 1.24%. **Stanford Seed Co.**; Master Feed & Grain, Conneautville, Pa. (A642201 and A641227)
Reed Canary Grass 3886	Labeled 77% germination, found 65%. **Stanford Seed Co.**; Master Feed & Grain, Conneautville, Pa. (A642198).
Bluegrass Kentucky 3554	Labeled 88.50% pure, found 82.91%. Labeled 10.70% inert matter, found 16.60%. **Stanford Seed Co.**; P. L. Rohrer & Bro., Smoketown, Pa. (A640422)
Bluegrass Fancy Kentucky 1854	Labeled 85.00% pure, found 77.90%. Labeled .25% crop seeds, found .84%. Labeled 14.50% inert matter, found 21.11%. "Fancy" is not a variety name. **Vaughan's Seeds**; Carlisle Hardware, Carlisle, Pa. (A641830)
Ryegrass Perennial ?	Labeled .19% weed seed, found .89%. Labeled as perennial found to be annual. Lot No. is required information. Robert E. Moyer, Allentown, Pa.; Lee Dreisbach, Lehighton, Pa. (A641363)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Ninety-eight official samples of mixtures of agricultural seeds were analyzed or checked for labeling and contents in the Seed Laboratory. This table lists the nature of the serious violations. Twenty-nine mixtures were found to be in technical violation of the law, or in violation at the wholesale level; these have been relabeled or destroyed. These violations are not listed in this table but are recorded in Table IV.

The listing of both wholesaler and retailer does not imply a judgment of guilt against one or the other. The vendor of the seed, usually the retailer, is legally responsible for its condition, but the retailer cannot be blamed in all cases of mislabeling. Wholesaler's name is in boldface type. Laboratory number is in parenthesis after the remarks and source of seed.

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
All Clover Mixture ACM-1-64	Labeled 67.20% pure small hop clover, found 50.42%. Labeled 31.30% pure white clover, found 48.45%. Hop clover is a weed. **Atlantic Seed Co.**; Hills, York, Pa. (A640864)
Windsor Green Mixed Grass Seed PX-1-64	Labeled 51.25% pure perennial ryegrass, found 62.88%. Labeled 47.43% pure annual ryegrass, found 36.17%. No treatment present. **Atlantic Seed Co.**; Hills, York, Pa. (A640865)
Hardwear Mixture PMST	Labeled 66.84% pure perennial ryegrass, found 73.36%. Labeled 6.52% pure Italian ryegrass, found 2.18%. Labeled 5.03% pure Kentucky 31 tall fescue, found 2.94%. **Cover Lawn Seed Co.**; Highland Park Hardware, Upper Darby, Pa. (A641702)
50-50 Mixture MERN 50-35	Labeled 50.55% pure Merion Kentucky bluegrass, found 66.17%. Labeled 35.37% pure Kentucky bluegrass, found 29.80%. Wood bluegrass claimed, none found. **Cover Lawn Seed Co.**; Boscou's (East), Reading, Pa. (A640895)
Grant Shady Lawn Mixture FDA150	Labeled 58.86% pure Festuca spp. (Chewings, creeping, Pennlawn), found 45.77%. Poa trivialis found, none labeled. Labeled 4.46% inert matter, found 8.07%. **Craver Dickinson Seed Co.**; Grant Feed Store, Meadville, Pa. (A642025)
Town House Lawn Seed Mixture 316	Labeled 75% germination for Kentucky bluegrass, found 64%. **Crosman Seed Corp.**; Erie Central Maul, Erie, Pa. (A642001)
Premium "51" Druid Hill Park Seed Mixture 8541 A	Labeled 20.92% pure Poa trivialis, found 28.36%. Labeled 5.00% pure Italian ryegrass, found 3.06% and 4.28%. Labeled 16.84% pure Alta tall fescue in (A640883) found 19.71%. **Druit Hill Park Seed Co.**; Acme, Carlisle and Kingston, Pa. (A640856 and A640883)
Delux Green Lawn Mixture 31171	Labeled 35.20% pure Merion Kentucky bluegrass, found 46.72%. Labeled 13.50% pure Kentucky bluegrass, found 5.71%. **Eastern States Farmers Exch.**; Eastern States Farmers Exch.; Clearfield, Pa. (A640889)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Village Green Grass Seed Mixture 1660	Labeled 39.36% pure Italian ryegrass, found 27.87%. Labeled 31.20% pure perennial ryegrass, found 41.77%. **Excel Seed Co.**; People's Drug Stores, Laureldale, Pa. (A640898)
Veltex Grass Seed Mixture 6495	Labeled 46.75% pure Italian ryegrass, found 52.72%. Labeled 26.10% pure perennial ryegrass, found 19.04%. Labeled .06% crop seed, found .93%. Not a uniform lot of seed. **Fredonia Seed Co.**; Dye & Bresee Hardware Co., Towanda, Pa. (A640881)
Utility Lawn Seed Mixture PB328	Labeled .01% crop seed, found 2.77%. **G. L F. Exchange, Inc.**; Cooks Feed Mill, Lake Ariel, Pa. (A641729)
Plowdown Mixture PB-378 B5	Labeled 59.87% pure red clover, found 64.76%. Labeled 39.82% pure sweet clover, found 31.05%. Labeled 81%-7% germination and hard seed for sweet clover, found 63%-5%. Labeled .17% crop seed, found 3.57%. **G. L. F. Exch., Inc.**; G. L. F., Union City, Pa. (A642233)
General Purpose Lawn Seed Mixture 11764	Labeled 2.55% inert matter, found 5.98%. **Garden Institute of Research and Development**; Highland Gardens, Camp Hill, Pa. (A641717)
Premium Lawn Seed Mixture 12464	Labeled 18.80% pure Merion Kentucky bluegrass, found 9.75%. Labeled 24.50% pure Festuca spp. (Pennlawn & Chewings), found 33.49%. **Garden Institute of Research and Development**; Highland Gardens, Camp Hill. Pa. (A641718)
Wonderlawn Mixture UT164	Labeled 4.8% inert matter, found 8.28%. **Garfield Williamson**; Garden Fair, Inc., Upper Darby, Pa. (A640900)
All Perennial Independence Hall Seed Mixture PC	Labeled 6.02% pure Poa trivialis, found 11.31%. Labeled pure Festuca spp. (Chewings, Pennlawn & creeping), found 18.42%. **Independence Hall Seed Co.**; Boscou's, Reading, Pa. (A640896)
Rainy Day RDC?	Analysis tag illegible. Word "mixture" is required information. Labeled 9.50% pure Italian ryegrass, found 3.18%. **Independence Hall Seed Co.**; Lit Brothers, Broomall, Pa. (A640899)
Shade Mixture Grass Seed KB63-11	Labeled 68.60% pure Festuca spp. (Creeping & Chewings), found 59.85%. Labeled 18.10% pure Poa trivialis, found 9.76%. Labeled 8.50% pure Kentucky bluegrass, found 24.09%. Labeled 85% germination for Poa trivialis, found 69%. Labeled 80% germination for Kentucky bluegrass, found 60%. Abbreviations are not permissible. **Kahn Bros. Co.**; Spiegel, Inc., Phila., Pa. (A631861)
Dexter Park Mixture Grass Seed KB 63-10	Labeled 80% germination for Kentucky bluegrass, found 64%. Abbreviations are not permissible. Name and address is required information. **Kahn Bros. Co.**; Spiegel, Inc., Phila., Pa. (A631863)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Merion Bluegrass Formula 63-12	Labeled .20% crop seed, found .68%. Word "mixture" is required information. Abbreviations are not permissible. Name and address is required information. **Kahn Bros. Co.**; Spiegel, Inc., Phila., Pa. (A631864)
Midway Park Lawn Seed 63-9	Labeled 34.30% pure perennial ryegrass, found 16.11%. Annual ryegrass found, none claimed. Word "mixture" is required information. **Kahn Bros. Co.**; Spiegel, Inc., Phila., Pa. (A631865)
Home & Country Grass Seed Mixture 3-039A	Labeled 29.92% pure creeping red fescue, found 24.60%. Labeled 33.16% pure perennial ryegrass, found 27.73%. Labeled 11.92% pure Italian ryegrass, found 15.89%. Labeled 5.32% pure timothy, found 7.81%. Redtop found, none labeled. **Lawn Products Co.**; Erat Hardware, New Milford, Pa. (A640887)
Lofts Marvelgreen Mixed Grass Seed MG 625	Labeled 35.89% pure creeping red fescue, found 30.66%. Labeled 19.60% pure annual ryegrass, found 1.91%. Labeled 9.35% pure Kentucky bluegrass, found 13.61%. Labeled 19.60% pure perennial ryegrass, found 27.44%. Labeled 5.40% pure Merion Kentucky bluegrass, found 12.45%. Labeled 90% germination for red fescue, found 75%. Labeled 90% germination for ryegrasses, found 73%. **Loft Pedigreed Seed Co.**; Pine Run Supply, Horsham, Pa. (A640853)
Lofts Supreme Mixed Grass Seed LS 625	Labeled 90% germination for Festuca spp. (Pennlawn and Illahee), found 34%. Labeled .28% crop seed, found 1.33%. **Loft Pedigreed Seed Co.**; Pine Run Supply, Horsham, Pa. (A640854)
Fairway Mixed Grass Seed F635	Labeled 44.75% pure perennial ryegrass, found 77.19%, Labeled 37.25% pure Italian ryegrass, found 9.78%. Labeled 14.67% pure red fescue, found 11.57%. Labeled 90% germination for red fescue, found 64%. **Loft Pedigreed Seed Co.**; Pine Run Supply, Horsham, Pa. (A640855)
Park Green Grass Mixture GPMC 464	Labeled 36.63% pure perennial ryegrass, found 41.95%. Labeled 35.28% pure Italian ryegrass, found 31.49%. Labeled 80% germination for red fescue, found 64%. **Loft Pedigreed Seed Co.**; Weis Markets, Inc., Sinking Springs, Pa. (A640890)
Four Fescue Mixed Grass Seed FBB-2-64	Labeled 39.20% pure meadow fescue, found 47.94%. Labeled 58.80% pure Festuca spp. (Chewings, Pennlawn, Illahee & creeping), found 51.13%. Labeled 85% to 80% germination for Festuca spp., found 69%. **Loft Pedigreed Seed Co.**; Harrisburg Daily Market, Hbg., Pa. (A641705)
Finer Shady Lawn Seed FS-1-64	Labeled .35% crop seed, found 2.16%. Illegal flagging of ingredients. Word "mixture" is required information. **Loft Pedigreed Seed Co.**; Clabers Dept. Store, Allison Park, Pa. (A641709)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Glenside Park Mixed Grass Seed GPA-1-64	Labeled 28.42% pure perennial ryegrass, found 37.70%. Labeled 19.80% pure Italian ryegrass, found 13.14%. **Loft Pedigreed Seed Co.**; Acme Markets, Carlisle, Pa. (A641723)
Lofts Marvelgreen Mixed Grass MG1-64	Labeled 31.15% pure Kentucky bluegrass, found 16.88%. Labeled 15.52% pure creeping red fescue, found 24.87%. Labeled 19.60% pure perennial ryegrass, found 27.56%. Labeled 19.60% pure Italian ryegrass, found 11.70%. **Loft Pedigreed Seed Co.**; Eddies Nursery, Dickson City, Pa. (A641730)
Oak Lane Special Mixed Grass Seed OLG-64	Labeled 46.75% pure Kentucky bluegrass, found 32.70%. Poa trivialis found, none labeled. Labeled .40% crop seed, found 2.38%. Labeled 8.73% inert matter, found 12.67%. **Loft Pedigreed Seed Co.**; Oak Lane Garden Nurseries, Maple Glen, Pa. (A641741)
Grant Suburban Fescue Mixture GFF-1-64	Labeled 57.50% pure Festuca spp. (Chewings, Pennlawn, Illahee & creeping), found 62.66%. Labeled 80% germination for Festuca spp., found 63%. **Loft Pedigreed Seed Co.**; W. T. Grant Co., Hbg., Pa. (A642011)
Shady Spot Mixed Grass Seed SS 63	Labeled 85% germination for red fescue, found 69%. Labeled 80% germination for Poa trivialis, found 63%. **Mock Seed Co.**; C. G. Murphy Co., Warren, Pa. (A631927)
All Purpose Lawn Seed Mixture 6400	Labeled 33.35% pure red fescue, found 47.85%. Labeled 36.80% pure Kentucky and Delta Kentucky bluegrass, found 27.28%. Labeled 9.20% pure Poa trivialis, found 6.87%. Name and address is required information. **Montgomery Ward**; Montgomery Ward, Carlisle, Pa. (A641719)
Super Sunny Mixed Grass Seed SS 64-1	Labeled 29.40% pure perennial ryegrass, found 35.88%. Labeled 54.50% pure Italian ryegrass, found 47.91%. **Lee Patton Seed Co.**; Currys Garden Center, Hershey, Pa. (A642002)
Patco's Keystoner Lawn Seed Mixture K 63F-1	Labeled .85% crop seed, found 2.29%. Name and address is required information. **Lee Patton Seed Co.**; Brow's Hardware, Shillington, Pa. (A640897)
Supreme Grass Seed Mixture 720	Labeled 51.00% pure Kentucky bluegrass, found 49.42%. Labeled 41.65% pure Festuca spp. (creeping, Chewings & Pennlawn), found 35.90%. Labeled 1.25% crop seed, found 2.00%. Labeled 6.00% inert matter, found 12.27%. **Penn Fruit Co.**; Penn Fruit Co., Phila., Pa. (A631867)
Old English Splendor-lawn Lawn Seed Mixture 305A	Labeled 70% and 75% germination for Festuca spp. (creeping and Chewings), found 59%. Labeled .50% crop seed, found 1.69%. **Philadelphia Seed Co.**; M. J. Miller & Son Hardware, Old Zionville, Pa. (A640885)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Old English Shady Lawn Seed Mixture 303	Labeled 47.50% pure Poa nemoralis, found 39.68%. Labeled 9.90% pure perennial ryegrass, found 11.77%. Labeled 39.00% pure Festuca spp. (Chewings, creeping & Pennlawn), found 41.17%. Labeled .55% crop seed, found 3.13%. Labeled 85% to 75% germination for Festuca spp., found 45%. **Philadelphia Seed Co.**; L. W. Bunnell, Clarks Summit, Pa. (A641703)
Shmidheisers Shady Mixture ?	Labeled 44.10% pure Festuca spp. (Chewings, creeping, Pennlawn), found 38.75%. Labeled 14.25% pure perennial ryegrass, found 19.52%. Labeled .50% crop seed, found 2.78%. Labeled 85% germination for Festuca spp., found 70%. Lot number is required information. **Philadelphia Seed Co.**; Shmidheisers, Edge Hills, Pa. (A642236)
Sprout Grass Seed Mixture 6403	Labeled 44.10% pure perennial ryegrass, found 55.78%. Labeled 44.10% pure Italian ryegrass, found 33.96%. **Platte Valley Seed Co.**; Miracle Mart, Harrisburg, Pa. (A642014)
Gay Blade Grass Seed Mixture 6403	Labeled 44.10% pure perennial ryegrass, found 49.62%. Labeled 5.10% pure Kentucky 31 tall fescue, found 3.22%. **Platte Valley Seed Co.**; Atlantic Thrift, Norristown, Pa. (A640879)
Hi-Quality Lawn Seed Mixture 1FD	Labeled 6.97% inert matter, found 11.08%. **Robert A. Reichard, Inc.**; Modern Merchandise Mart, Allentown, Pa. (A640870)
Quick-Gro Grass Seed Mixture 11419	Labeled 44.00% pure perennial ryegrass, found 2.19%. Labeled 37.60% pure annual ryegrass, found 78.94%. **Wm. G. Scarlett & Co.**; Millers Auto Supply, Harrisburg, Pa. (A640860)
Contractor Mixture 3-392	Labeled 37.93% pure Italian ryegrass, found 21.03%. Labeled 9.00% pure perennial ryegrass, found 23.47%. Redtop found, none labeled. Labeled 70% germination for red fescue, found 45%. Labeled 3.73% inert matter, found 5.83%. Noxious weed seeds found, none labeled. **Seaboard Seed Co.**; Canonsburg Milling Co., Canonsburg, Pa. (A640878)
Society Hill Grass Seed Mixture 6416	Labeled 8.50% pure Kentucky bluegrass, found 13.24%. Labeled 38.25% pure Italian ryegrass, found 33.16%. Labeled 1.00% crop seed, found 2.57%. Name and address is required information. **Seaboard Seed Co.**; Silco Cut Rate, Shippensburg, Pa. (A641727)
Value Grass Seed Mixture 6418	Labeled 59.74% pure Italian ryegrass, found 50.71%. Labeled 23.65% pure perennial ryegrass, found 32.19%. **Seaboard Seed Co.**; Neil S. Harrison, Inc., Benton, Pa. (A641713)
Velvet Lawn Seed Mixture 395	Labeled a mixture, but only annual ryegrass found. **John M. Shawvan Co.**; J. A. Williams Co., Pittsburgh, Pa. (A640839)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Kentucky Greenlawn Seed Mixture 227	Labeled 70.01% pure Kentucky bluegrass, found 51.02%. Labeled 13.29% pure creeping red fescue, found 28.08%. Labeled 8.25% pure Highland bentgrass, found 16.88%. Labeled .09% crop seed, found 2.87%. **John M. Shawvan Co.**; J. A. Williams Co., Pittsburgh, Pa. (A641733)
Better Home & Garden Lawn Seed Mixture 247	Labeled 74.88% pure perennial ryegrass, found 67.36%. Annual ryegrass found, none labeled. **John M. Shawvan Co.**; J. A. Williams, Co., Pittsburgh, Pa. (A641734)
Merion Kentucky Bluegrass Mixture 219	Labeled 27.44% pure creeping red fescue, found 22.77%. Labeled 17.01% redtop, found 8.44%. Labeled 40.06% pure Merion Kentucky bluegrass, found 43.79%. Labeled 10.29% pure Kentucky bluegrass, found 20.86%. Labeled 80% germination for Merion Kentucky bluegrass, found 63%. Contains prohibited weed seeds. Illegal flagging. **John M. Shawvan Co.**; J. A. Williams Co., Pittsburgh, Pa. (A641735)
Lakeview Grass Seed Mixture 5005	Labeled .50% crop seed, found 1.08%. **Stanford Seed Co.**; Master Feed & Grain Co., Conneautville, Pa. (A631808)
Woodlawn Grass Seed 63-1	Labeled 86.25% pure Italian ryegrass, found 56.94%. Labeled 5.90% pure perennial ryegrass, found 17.74%. Kentucky bluegrass found, none labeled. Abbreviations not permissible. Word "mixture" and name and address is required information. Labeled .20% crop seed, found 4.16%. **True Turf Seed Co.**; Spiegel, Inc., Philadelphia, Pa. (A631868)
Suburban Home Grass Seed Mixture RTCE 302	Labeled 69.45% pure Italian ryegrass, found 60.35%. Labeled 18.38% pure perennial ryegrass, found 32.81%. **Uncle Georges Seed Farms, Inc.**; Swid Bros., Carlisle, Pa. (A641721)
Worth-Mor Grass Seed Mixture P1-201	Labeled 63.93% pure perennial ryegrass, found 48.11%. Labeled 32.03% pure Italian ryegrass, found 47.05%. **Uncle Georges Seed Farms, Inc.**; Swid Bros., Carlisle, Pa. (A641722)
Economy Grass Seed Mixture 1804	Labeled 13.95% pure Kentucky bluegrass, found 16.15%. Labeled 52.42% pure perennial ryegrass, found 39.20%. Labeled 22.49% pure annual ryegrass, found 34.30%. **Vaughn's Seed Co.**; Gross Hardware, Highspire, Pa. (A640877)
All Purpose Grass Seed Mixture 1814 was 1925	Labeled 38.25% pure Kentucky bluegrass, found 23.77%. Labeled 19.40% pure red fescue, found 39.87%. Labeled 34.30% pure annual ryegrass, found 20.01%. Redtop found, none labeled. **Vaughn's Seed Co.**; Hennon Hardware Co., New Castle, Pa. (A641710)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Economy Grass Seed Mixture 1804 was 1926	Labeled 16.15% pure Kentucky bluegrass, found 13.67%. Labeled 5.85% pure red fescue, found 27.22%. Labeled 39.20% pure perennial ryegrass, found 21.17%. Labeled 90% germination for ryegrass, found 67%. Vaughn's Seed Co.; Carlisle Hardware, Carlisle, Pa. (A641715)
Special Mixture 364	Labeled .75% crop seed, found 4.90%. Whitney Seed Co.; Rohrbach Hardware & Supply Co., Scranton, Pa. (A641731)
Grass Seed Mixture #B 17364	Labeled .40% crop seed, found 2.96%. Whitney Seed Co.; Nickle Plate Mills, Erie, Pa. (A641732)
Feeney's Best Mixed Grass Seed FB-63	Labeled 90% germination for Festuca spp., found 43%. Jim Feeney's Garden Center, Feasterville, Pa. (A631846)
Feeney's Special Mixture FS-63	Labeled 80.89% pure Festuca spp. (creeping & Chewings), found 46.31%. Labeled 90% germination for Festuca spp., found 44%. Labeled 80%-5% germination and hard seed for white clover, found 61%-2%. Labeled .30% crop seed, found 4.31%. Tall and meadow fescue found, none labeled. Jim Feeney's Garden Center, Feasterville, Pa. (A631847)
Feeney's Best Mixture FB-641	Labeled 85% germination for Kentucky 31 tall fescue, found 68%. Labeled 90% germination for Festuca spp. (creeping & Chewings), found 73%. Components of less than 5% should not be listed. Jim Feeney's Garden Center, Feasterville, Pa. (A642015)
Feeney's Special Mixture FS-641	Labeled 85% germination for Kentucky 31 tall fescue, found 65%. Labeled 90% germination for Chewings fescue, found 29%. Jim Feeney's Garden Center, Feasterville, Pa. (A642017)
Lawn Seed Mixture ?	Percentages by weight must be given. Crop seed, inert matter, weed seeds found, none labeled. Lot No. and test date are required information. Improper use of kind and variety names. Miller Brothers Garden Center, Erie, Pa. (A642009)
Mundis Greenlawn Grass Seed Mixture 600-2	Labeled 22.90% pure Pennlawn red fescue, found 28.65%. Labeled 6.95% pure Highland bentgrass, found 12.07%. Labeled 33.95% pure annual ryegrass, found 22.97%. Labeled 2.85% inert matter, found 4.26%. Mundis Mills, Inc., York, Pa. (A641738)
Mundis Perma Lawn Grass Seed Mixture 600-4	Labeled 85% germination for Kentucky bluegrass, found 61%. Labeled 2.66% inert matter, found 4.94%. Mundis Mills, Inc., York, Pa. (A641739)
A & H Sod Special Mixture A & H 63	Labeled 90% & 85% germination for Festuca spp. (Chewings & creeping), found 58%. Pine Run Supply Co., Horsham, Pa. (A640852)

TABLE II

Mixtures of Seeds in Violation of the Seed Act

Name of Mixture Lot No.	Remarks and Source of Seed (Wholesaler & Retailer)
Extra Fancy Grass Seed Mixture 988	Labeled 46.75% pure Kentucky bluegrass, found 31.39%. Labeled 29.40% pure Festuca spp. (Chewings & creeping), found 48.24%. Labeled 85% germination for Festuca spp., found 68%. Name and address is required information. Shmidheiser, Edge Hill, Pa. (A642234)
Fancy Grass Seed Mixture 987	Labeled 34.30% pure Festuca spp. (Chewings, creeping), found 27.31%. Labeled 9.20% pure redtop, found 14.21%. Name and address is required information. Shmidheiser, Edge Hill, Pa. (A642235)
Speedy Grass Seed Mixture 411A	Labeled 19.80% pure annual ryegrass, found 1.00%. Tall Fescue found, none labeled. Name and address is required information. Shmidheisers, Edge Hill, Pa. (A642237)
Special Grass Seed Mixture 487	Labeled 43.65% pure perennial ryegrass, found 32.07%. Labeled 9.20% pure redtop, found 18.64%. Labeled 29.40% pure Festuca spp. (Chewings & creeping), found 15.12%. Tall Fescue found, none labeled. Labeled 85% germination for Festuca spp., found 70%. Labeled 90% germination for redtop, found 78%. Name and address is required information. Shmidheisers, Edge Hill. Pa. (A642238)

TABLE III

Vegetable Seeds in Violation of the Seed Act

Seven hundred and ninety-five samples of vegetable seeds were received and tested in the Seed Laboratory. This table includes only those samples that were found to be in serious violation of the Seed Act. Twenty samples were found to be in technical violation of the law or in violation at the wholesale level; these have been relabeled or destroyed. These violations are not listed in this table but are recorded in Table IV.

The wholesaler's name in all instances and the germination percentage for those samples of seed found below standard are in boldface type. Samples, for which the found germination is not in boldface, are in violation for some other reason as indicated at the end of the table.

Lab. No.	Kind	Source of Seed Variety	Given Germ.	Given Date	Found Germ.	Stand- ard
		Asgrow Seed Co. Lebanon Valley Farm Bureau, Lebanon, Pa.				
A641839	Lima Beans	Ford hook 242	86	11/63	**55**	70
		Benton-Kirby, Inc. G. C. Murphy, Lemoyne, Pa.				
A641303	Tomato	Rutgers	75	1/60	**40**	75
A641304	Pepper	California Wonder	55	11/63	**0**	55
		Robert Buist Co. J. P. Bixler & Sons, Inc., Carlisle, Pa.				
A641295	Lettuce	New York No. 12		1964	**49**	80
A641298	Lima Beans	Fordhook 242		1964	**59**	70
		W. Atlee Burpee Co. Woolworth Stores, Butler, Pa.				
A641232	Onion	Evergreen Bunching	75	12/63	**55**	70
		Crosman Seed Corp. G. C. Murphy, Lemoyne, Pa.				
A641299	Lima Beans	Fordhook 242	75	1/64	**43**	70
		G. C. Murphy, Shippensburg, Pa.				
A641843	Lima Beans	Fordhook 242	80	1/64	**66**	70
		Herbst Bros. Seedmen, Inc. American Seed Co., Lancaster, Pa.				
A640370	Beet	Early Wonder	83	12/63	**62**	65
		Livingston Seed Co. Peterson Hardware, Indiana, Pa.				
A641083	Pepper	California Wonder		*1963	**2**	55
		Mulford Hickerson Corp. Woolworth, Harrisburg, Pa.				
A641318	Tomato	F1 Hybrid Early**	75	12/63	75	75

TABLE III
Vegetable Seeds in Violation of the Seed Act

Lab. No.	Kind	Source of Seed Variety	Given Germ.	Given Date	Found Germ.	Standard
		Northrup King & Co.				
		Acme Market, New Cumberland, Pa.				
A641973	Tomato	Cocktail**	75	12/63	75	75
		Walter S. Schell, Inc.				
		Kratzers Hardware, Elizabethville, Pa.				
A641490	Lima Beans	Fordhook	91	11/63	**20**	70
		Cochran & Allen Hardware, Carlisle, Pa.				
A641827	Lima Beans	Fordhook 242	91	1964	**54**	70
		Shaulls Hardware, Mechanicsburg, Pa.				
A641828	Lima Beans	Fordhook 242		1964	**45**	70
		Paul Mell Hardware, Inc., Reading, Pa.				
A641837	Lima Beans	Fordhook***	90	11/63	74	70
		I. W. Scott Co.				
		Scotts Garden Center, Pittsburgh, Pa.				
A640953	Lima Beans	Fordhook 242		1964	**33**	70
A640958	Lettuce	Imperial 44		1964	**15**	80
		Woodruff Triple "T" Seed Co.				
		Sunbury Wallpaper & Paint Co., Sunbury, Pa.				
A641654	Lettuce	Simpson's Early Curled	80	10/63	**62**	80
		Independents				
		Leamans Seed Store, Waynesboro, Pa.				
A641443	Lettuce	Iceburg	87	1/64	**70**	80

* Illegal test date
** Not a variety name
*** Below labeled germination

TABLE IV

Summary, by Wholesalers, of Total Numbers of Official Samples Tested in the Seed Laboratory

WHOLESALE DISTRIBUTORS	Agricultural			Mixtures			Vegetable		
	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Abbott & Cobb Philadelphia, Penna.	..	..	..	1	..	..	19	..	..
Agricultural Development Corp. Shiremanstown, Penna.	..	..	..	3	..	1	..	..	..
Alberta Wheat Pool Seed Div. Calgary, Alberta, Canada	1	..	..	..	..	..	..	..	..
Alexander Seed Farms State College, Penna.	1	..	..	..	..	..	..	..	..
American Seed Co. Lancaster, Penna.	..	..	..	..	..	..	17	..	..
Asgrow Seed Co. New Haven, Connecticut	1	..	..	..	..	..	83	1	..
Atlantic Seed Co. Martinsville, New Jersey	2	..	..	1	2	1	..	..	..
Banfield-Baker Corp. Elmira, New York	..	..	1	..	..	..	..	..	..
Bartelele's Seed Co. Denver, Colorado	1	..	..	..	..	..	..	..	..
Barzen of Minneapolis, Inc. Minneapolis, Minnesota	1	..	..	..	..	..	..	..	..
Beachley-Hardy Seed Co. Camp Hill, Penna.	176	1	6	4	..	2	..	..	..
Benton-Kirby, Inc. Milwaukee, Wisconsin	..	..	..	..	..	..	1	2	..
Better Seed Co. Pittsburgh, Penna.	..	..	..	..	..	..	20	..	1
Bristol Garden Products Co. Philadelphia, Penna.	..	..	1	..	..	..	..	..	..
Bristol Grain & Seed Co. Bristol, Illinois	..	..	..	1	..	..	..	..	..
Robert Buist Seed Co. Philadelphia, Penna.	..	..	1	2	..	1	29	2	1
E. F. Burlingham & Son Forest Grove, Oregon	10	..	..	..	..	..	..	..	..
W. Atlee Burpee Co. Philadelphia, Penna.	4	..	..	2	..	4	112	1	3

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	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Carlton Seed Co. Hanover, Penna.	46	..	3	..	..	..	..	..	..
Casterline & Sons Seeds, Inc. Dodge City, Kansas	1	..	..	..	..	..	..	..	..
Central Wisconsin Seed Co. Waupeca, Wisconsin	1	..	..	..	..	..	..	..	..
Champlain Valley Seed Growers, Inc. Westport, New York	3	..	1	..	..	..	..	..	..
C. S. Clark & Son, Inc. Wakeman, Ohio	..	..	..	..	..	..	1	..	..
Clinton Nursery Products, Inc. Clinton, Connecticut	..	..	..	..	..	..	..	..	1
Comark, Inc. Ithaca, New York	..	..	..	..	..	..	3	..	..
Cornelli Seed Co. St. Louis, Missouri	..	..	..	..	..	..	1	..	..
Cover Lawn Seed Co. Baltimore, Maryland	..	..	..	1	2	1	..	..	..
Craver-Dickinson Seed Co. Buffalo, New York	13	1	2	..	1	..	..	..	..
Crosman Seed Corp. East Rochester, New York	..	..	..	..	1	..	27	2	1
Cumberland Valley Co-op. Ass'n. Shippensburg, Penna.	1	..	..	..	..	..	..	..	..
DeKalb Agricultural Ass'n., Inc. DeKalb, Illinois	16	..	..	..	..	..	..	..	..
Dessert Seed Co., Inc. El Centro, California	1	..	..	..	..	..	6	..	..
Dewine & Hamma Yellow Springs, Ohio	18	2	1	..	..	..	..	..	..
T. A. Doebler & Son Jersey Shore, Penna.	10	..	..	..	..	..	..	..	..
Druid Hill Park Seed Co. Baltimore, Maryland	..	..	..	..	2	..	..	..	..
E. I. DuPont de Nemours & Co., Inc. Wilmington, Delaware	..	..	..	2	..	..	..	..	..

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	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Eastern States Farmers Exch. West Springfield, Mass.	62	4	1	5	1	1	58	..	2
Edgewood Farms, Inc. Marysville, Ohio	..	..	..	1	..	..	..	..	..
A. Ertag, Inc. Jersey City, New Jersey	..	1	..	..	..	..	..	..	..
Excel Seed Co. Downers Grove, Illinois	..	..	..	..	1	..	..	..	..
Ferry-Morse Seed Co. Buffalo, New York	..	..	..	..	..	..	30	..	1
Forest Seed Co. Rochester, New York	..	..	..	..	..	..	8	..	..
Forestry Associates Allentown, Penna.	12	..	..	..	..	..	..	..	..
Fredonia Seed Co. Fredonia, New York	..	..	..	3	1	..	31	..	1
Frontier Hybrids, Inc. Scott City, Kansas	1	..	..	..	..	..	..	..	..
Edward J. Funk & Son Kentland, Indiana	..	..	2	..	..	..	..	..	..
Garden Institute of Research and Development Baltimore, Maryland	..	..	..	..	2	..	..	..	..
Garden Patch Products, Inc. Milwaukee, Wisconsin	..	..	..	..	..	..	1	..	..
Garfield Williamson, Inc. Jersey City, New Jersey	..	..	..	..	1	..	..	..	..
Ging, Inc. Farnia, Illinois	3	1	..	..	..	..	..	..	..
Co-op. G.L.F. Exchange, Inc. Buffalo, New York	49	3	7	1	2	..	1	..	..
W. T. Grant Co. New York, New York	..	1	..	..	..	..	..	..	..
Great Western Seed Co. Albany, Oregon	1	..	..	..	..	..	..	..	..

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	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Jonathan Green & Sons Kearney, New Jersey	..	..	..	2	..	..	..	..	..
The Chas. C. Hart Seed Co. Wethersfield, Connecticut	..	..	..	..	..	..	6	..	..
Herbst Brothers Seedsmen, Inc. New York, New York	1	..	..	..	..	..	..	1	..
Heritage House Products, Inc. Pittsburgh, Penna.	..	..	..	2	..	..	..	..	..
Heyman Farms Monroeville, Ohio	1	..	..	..	..	..	..	..	..
Henry Hirsch & Sons, Inc. Toledo, Ohio	5	1	..	..	..	..	..	..	..
A. H. Hoffman, Inc. Landisville, Penna.	73	..	3	..	..	..	..	..	..
Hoffman Seed & Grain Co. Muncy, Penna.	14	..	..	..	..	..	..	..	..
Holler & Co., Inc. Rocky Ford, Colorado	..	..	..	..	..	..	2	..	..
Home and Garden Products, Inc. New York, New York	..	..	..	1	..	..	..	..	..
Hygrade Seed Co. Fredonia, New York	..	..	..	..	..	..	1	..	..
Independents	9	1	1	3	12	1	4	1	..
Independence Hall Seed Co. Baltimore, Maryland	..	..	..	5	2	..	..	..	..
Intermountain Bean Co., Inc. Twin Falls, Idaho	..	..	..	..	..	..	30	..	..
Kahn Bros. Co. Chicago, Illinois	..	1	..	..	4	2	..	..	..
Kaufman Seeds Ashdown, Arkansas	2	..	..	..	..	..	..	..	..
Kellogg Seed Co. Ventura, California	..	..	..	..	..	..	4	..	..
King Grain & Seed Co., Ltd. Chatham, Ontario	..	..	1	..	..	..	..	..	..

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	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
S. S. Kresge Co. Detroit, Michigan	..	..	..	1	..	..	..	..	..
D. Landreth Seed Co. Philadelphia, Penna.	..	..	..	3	..	1	6	..	..
Lawn & Grass Seeds, Inc. Buffalo, New York	1	..	..	..	..	..	..	..	..
Lawn Products Co. Philadelphia, Penna.	..	..	..	1	1	..	..	..	..
The Chas. H. Lilly Co. Albany, Oregon	1	..	..	..	..	..	..	..	..
Livingston Seed Co. Columbus, Ohio	..	..	..	..	..	..	11	1	6
Loft Pedigreed Seed Co. Jersey City, New Jersey	8	2	1	3	10	..	..	..	..
Ludlow Co-op. Elevator Co. Ludlow, Illinois	1	..	..	..	..	..	..	..	..
McCabe Seeds, Ltd. Winnipeg, Canada	3	..	..	..	..	..	..	..	..
Manderville-King Co. Rochester, New York	..	..	..	..	..	..	11	..	..
Mays Seed Co. Womelsdorf, Penna.	36	..	..	..	..	..	..	..	..
Metropolitan Seed Corp. Crookston, Minnesota	..	..	..	2	..	..	..	..	..
Meyer Seed Co. Baltimore, Maryland	..	..	..	..	..	..	3	..	..
Mock Seed Co. Pittsburgh, Penna.	4	1	..	8	1	2	..	..	..
Montgomery Ward Co. Chicago, Illinois	..	..	..	..	1	1	..	..	..
Mulford-Hickerson Corp. Apopka, Florida	..	..	..	..	..	..	3	1	..
New England Seed Co. Providence, R. I.	..	..	..	..	..	1	..	..	..
Northampton County Seed Co. Bath, Penna.	11	2	..	..	..	..	..	..	..

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	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Northrup King & Co. Minneapolis, Minnesota	17	..	..	..	..	..	19	1	..
O & G Seed Co. Caldwell, Idaho	..	..	..	..	..	..	4	..	..
O. Y. O. Hybrid Seed Corn Co. Medina, Ohio	1	..	..	..	..	..	..	..	..
The Ohio Seed Co. West Jefferson, Ohio	99	3	1	2	..	..	..	..	..
J. C. Oliger Seed Co. Akron, Ohio	3	2	1	1	..	..	..	..	..
Ontario Seed Cleaners Toronto, Canada	2	..	..	..	..	..	..	..	..
Ore-Approved Seed Growers Ass'n. Albany, Oregon	1	..	..	..	..	..	..	..	..
Pacific Grains, Inc. Rickreall, Oregon	2	..	..	..	..	..	..	..	..
The Page Seed Co. Greene, New York	..	..	..	..	..	..	40	..	..
Park Seed Farms Urbana, Ohio	..	..	1	..	..	..	..	..	..
Lee Patton Seed Co. Jersey City, New Jersey	..	..	..	1	2	1	..	..	..
Penn Fruit Co. Philadelphia, Penna.	..	..	..	..	1	..	..	..	..
Pennsylvania Farm Bureau Manheim, Penna.	116	5	4	3	..	..	..	..	..
Peto Seed Co. Saticoy, California	..	..	..	..	..	..	1	..	..
Pfister Association Growers, Inc. Walnut, Illinois	5	..	1	..	..	..	..	..	..
The Philadelphia Seed Co. Philadelphia, Penna.	29	1	2	7	3	2	..	..	..
J. M. Phillips Mercersburg, Penna.	..	..	..	..	..	..	21	..	..

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Summary, by Wholesalers, of Total Numbers of Official Samples Tested in the Seed Laboratory

WHOLESALE DISTRIBUTORS	Agricultural			Mixtures			Vegetable		
	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Pieters-Wheeler Seed Co. Gilroy, California	..	..	..	..	..	..	2	..	..
Pixley & Co. East Bethany, New York	..	1	..	..	..	..	..	..	..
Platte Valley Seed Co. Kansas City, Missouri	..	..	..	..	2	..	..	..	..
Pratun Co-op. Warehouse Pratun, Oregon	..	..	1	..	..	..	..	..	..
Pride Hybrid Co. of Canada Chatham, Ontario	1	..	..	..	..	..	..	..	..
Randolph Seed Co. East Randolph, New York	..	..	..	..	..	..	3	..	..
Robert A. Reichard, Inc. Allentown, Penna.	..	..	..	2	1	2	..	..	..
Reid Beans & Seeds Ltd. Chatham, Ontario	1	..	..	..	..	..	..	..	..
Reist Seed Co. Mt. Joy, Penna.	10	1	..	..	..	..	..	..	..
J. B. Rice, Jr., Inc. Shusham, New York	..	..	..	..	..	..	15	..	..
Rogers Bros. Seed Co. Idaho Falls, Idaho	..	..	..	..	..	..	8	..	..
Waldo Rohnert Co. Hollister, California	..	..	..	..	..	..	4	..	..
P. L. Rohrer & Bros. Smoketown, Penna.	29	..	..	..	..	..	16	..	..
George Royes Grass Seeds Imbler, Oregon	1	..	..	..	..	..	..	..	..
Sanford Seed Co. Silverton, Oregon	2	..	2	..	..	..	..	..	..
Wm. G. Scarlett & Co. Baltimore, Maryland	20	4	2	2	1	..	..	..	..
Shields Seed Co. Nampa, Idaho	2	..	..	..	..	..	..	..	..

TABLE IV

Summary, by Wholesalers, of Total Numbers of Official Samples Tested in the Seed Laboratory

WHOLESALE DISTRIBUTORS	Agricultural			Mixtures			Vegetable		
	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Standard Seed Co. Dayton, Ohio	..	..	..	..	..	..	3	..	..
Stanford Seed Co. Pittsburgh, Penna.	66	5	7	2	1	1	..	..	..
Steiman, Inc. Fort Wayne, Indiana	1	..	..	..	..	..	..	..	..
Strever Seed & Grain Co. Waterman, Illinois	..	..	1	..	..	..	..	..	..
W. A. Thompson & Sons, Ltd. Blenheim, Ontario	1	..	..	..	..	..	..	..	..
Tri-State Seed Co. Philadelphia, Penna.	..	..	..	..	..	..	12	..	..
True Turf Seed Co. Chicago, Illinois	..	..	..	..	1	..	..	..	..
Uncle Georges Seed Farm Monsey, New York	..	..	..	1	2	..	..	..	..
Union Wadding Co. Pawtucket, R. I.	..	..	..	2	..	..	1	..	..
Valley Feed & Supply Co., Inc. Spring Valley, New York	..	..	..	1	..	..	..	..	..
Vaughan's Seeds Chicago, Illinois	..	1	1	..	3	..	..	..	..
C. M. Volkman & Co. San Francisco, California	1	..	..	..	..	..	..	..	..
Walter S. Schell, Inc. Harrisburg, Penna.	7	..	..	..	..	..	37	4	2
F. W. Schumacher Sandwich, Massachusetts	1	..	..	..	..	..	..	..	..
A. J. Schlessman & Son, Inc. Avery, Ohio	4	..	..	..	..	..	..	..	..
Scott Farm Seed Co. Mechanicsburg, Ohio	1	..	..	..	..	..	..	..	..
The I. W. Scott Co. Pittsburgh, Penna.	..	..	..	3	..	..	17	2	1
O. M. Scott & Son Marysville, Ohio	..	..	..	2	..	1	..	..	..

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Summary, by Wholesalers, of Total Numbers of Official Samples Tested in the Seed Laboratory

WHOLESALE DISTRIBUTORS	Agricultural			Mixtures			Vegetable		
	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations	Correctly Labeled	Serious Violations	Technical Violations
Seaboard Seed Co. Philadelphia, Penna.	86	7	9	3	3	..	..	..	..
Sears Roebuck & Co. Chicago, Illinois	..	..	..	1	..	1	1	..	..
Seed Specialists, Inc. Pittsburgh, Penna.	..	..	..	1	..	..	..	..	..
Seems Seed Farms, Inc. Emmaus, Penna.	11	..	1	..	..	1	..	..	..
K. Servos West Chester, Penna.	..	..	..	2	..	..	..	..	..
John M. Shawvan Co. Forest Park, Illinois	2	..	..	..	4	..	..	..	..
Western Auto Supply Co. Kansas City, Missouri	..	..	..	1	..	..	..	..	..
White Rose Seed & Nursery Co. York, Penna.	..	..	..	3	..	1	20	..	..
Whitney Seed Co. Buffalo, New York	..	..	..	1	2	..	..	..	..
Wilkens Seed Grains, Inc. Pontiac, Illinois	14	..	..	..	..	..	..	..	..
Woodruff's "Triple T" Seeds, Inc. Wethersfield, Connecticut	..	..	..	..	..	..	..	1	..
TOTALS	1140	52	66	99	73	29	753	20	20

TABLE V

Quality of Pennsylvania Grown Forage Seeds

During the past year the number of home grown alfalfa and red clover samples received by the Seed Laboratory has increased over 50% from the previous year. This report will show that the number of timothy samples has decreased but this is because of the change of dates that this report covers. Another category, birdsfoot trefoil, has been added to this table.

This table gives some indication of the quality of seed that Pennsylvania farmers are growing. Many of the lots of seed considered illegal in this table have been recleaned and made legal for sale. Although a lot of seed may be legal for sale, it could still be unfit for planting; for example a lot of seed could contain a large quantity of weed seeds or be low in germination.

% of Home Grown Forage Seed Illegal For Sale

	1964	1963	1962
Alfalfa	33.3	40.0	--
Birdsfoot trefoil	16.6	--	--
Red Clover	51.2	28.8	36.4
Timothy	37.5	17.4	18.5

If farmers must plant home grown forage seed, they must learn the value of weed free quality seed. It is not necessary for farmers to plant home grown seed with high numbers of weed seeds present. It pays to have home grown seed properly cleaned and laboratory tested. Better yet, it pays to plant adapted varieties of certified seed.

	Number of Samples	Av. Purity Analysis	Purity High - Low	Noxious Weed Seeds Per Ounce Average	High - Low
			Alfalfa		
Legal	10	99.11	99.99 - 96.49	5.7	21 - 0
Illegal	5	*	*	92.8	182 - 32
			Birdsfoot Trefoil		
Legal	5	98.45	99.52 - 97.65	1.2	5 - 0
Illegal	1	*	*	40.0	40 - 40
			Red Clover		
Legal	59	99.51	99.99 - 96.80	8.8	28 - 0
Illegal	62	*	*	402	3360 - 31
			Timothy		
Legal	10	99.15	99.91 - 96.65	2.9	11 - 0
Illegal	6	*	*	171	548 - 34

* Samples not analyzed for purity.